Monitoring Data Record

Project Title: I-306 DB (I-85 in Durham) COE Action ID: 200020902

Stream Name: South Ellerbee Creek (Sites 2 & 13) DWQ Number: 001040
City, County and other Location Information: I-85 from W. of Broad St. to W. of Camden Ave. in Durham County
Date Construction Completed: n/a Monitoring Quarter: (5) of 4
Ecoregion: 8 digit HUC unit 03020201
USGS Quad Name and Coordinates:
Rosgen Classification:
Length of Project: 2,684' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 5/01/07
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Rd. Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us
Consultant Information:
Name:
Address:
Telephone Number: Email address:

Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (1) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit Conditions: The permittee shall visually monitor the vegetative plantings on all mitigation streambanks to access and insure complete stabilization of the mitigation stream segments. This monitoring shall include adequate visual monitoring of planted vegetation quarterly for a minimum of one year after final planting, and appropriate remedial actions (e.g., replanting, streambank grading, ect.). If within any monitoring year, bank stabilization is not acceptable as determined by the Corps of Engineers, and remedial action required by the Corps of Engineers is performed, the one year monitoring of the affected portions of the stream will begin again.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: A total of 29 photos were taken from 15 photo point locations. The station number given beside each photo point (PP) location is the approximate location of the stream relocation and not necessarily where the photo was taken along the stream.
Dates reference photos have been taken at this site: 2/24/06 & 3/22/06, 6/16/06, 9/12/06, 12/14/06, 5/1/07

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference:

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: South Ellerbee Creek is highly vegetated throughout the entire length of the stream restoration project, except, for a few areas that need some supplemental planting. In April 2007, these areas were supplementally planted which included stream relocations at Sta. 4+800, Sta. 6+000, and Sta. 1+020. The vegetation noted onsite included black willow, silky dogwood, green ash, sycamore, sweetgum, tulip poplar, wax myrtle, pine, mimosa, elm, river birch, black cherry, lespedeza, smartweed, jewelweed, goldenrod, fennel, *Juncus* sp., sedge, ragweed, and various grasses. NCDOT has completed five quarterly monitoring evaluations out of 4 quarterly evaluations that were required per the permit conditions. NCDOT is proposing to discontinue the visual inspection of planted vegetation.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The streambanks are stabilized throughout South Ellerbee Creek stream relocations. There are some areas of localized scouring along the streambanks but these areas have stabilized with herbaceous and woody vegetation. There were no signs of beaver activity during this monitoring evaluation. The old culvert footing located in the stream at approx. Sta. 6+000-L- LT. has been removed so that the water flow is directed more towards the center of the channel. As stated in the last quarterly evaluation, the channel stability and cross vane near Sta. 5+480 LT. was reviewed by DOT, USACE, and DWQ during October 2006. They agreed that the section of stream was stable and does not require the use of rip rap and that the cross vane, although slightly damaged, is still performing the required functions and no remedial action is necessary. NCDOT has completed five quarterly monitoring evaluations out of 4 quarterly evaluations that were required per the permit conditions. NCDOT is proposing to discontinue the visual inspection of channel stability monitoring.

Date Inspected			
Structure Type			
Is water piping through or around structure?			
Head cut or down cut present?			
Bank or scour erosion present?			
Other problems noted?			

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

South Ellerbee Creek

SITE 2

PP #1 Upstream (STA. 4+160-L- LT.)

PP #1 Downstream (STA. 4+160-L- LT.)

PP #2 Upstream (STA. 4+160-L- LT.)

PP #2 Downstream (STA. 4+160-L- LT.)

PP #3 Upstream (STA. 4+160-L- LT.)

PP #3 Downstream (STA. 4+300-L- LT.)

May 2007

South Ellerbee Creek

SITE 2

PP #4 Upstream (STA. 4+440-L- LT.)

PP #4 Downstream (STA. 4+440-L- LT.)

PP #5 Upstream (STA. 4+440-L- LT.)

PP #5 Downstream (STA. 4+440-L- LT.)

PP #6 Upstream (STA. 4+620-L- LT.)

PP #6 Upstream (STA. 4+620-L- LT.)

May 2007

South Ellerbee Creek

SITE 2

PP #6 Downstream (STA. 4+620-L- LT.)

PP #7 Upstream (STA. 4+800-L- LT.)

PP #7 Downstream (STA. 4+800-L- LT.)

PP #8 Upstream (STA. 4+800-L- LT.)

PP #8 Downstream (STA. 4+800-L- LT.)

PP #9 Upstream (STA. 5+400-L- LT.)

May 2007

South Ellerbee Creek

SITE 2

PP #10 Upstream (STA. 5+400-L- LT.)

PP #10 Downstream (STA. 5+400-L- LT.)

South Ellerbee Creek

SITE 13

PP #11 Upstream (STA. 6+000-L- LT.)

PP #11 Downstream (STA. 6+000-L- LT.)

PP #12 Upstream (STA. 6+000-L- LT.)

PP #12 Downstream (STA. 6+000-L- LT.)

PP #13 Upstream (STA. 1+020 –CONAB- LT.)

PP #13 Downstream (STA. 1+020 –CONAB- LT.)

May 2007

South Ellerbee Creek

SITE 13

PP #14 Upstream (STA. 1+020 –CONAB- LT.)

PP #14 Downstream (STA. 1+020 –CONAB- LT.)

PP #15 Downstream (STA. 1+240 –CONAB- LT.)